Cantharides

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An
Essay on
Cantharides
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An
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The natural tendency in the human frame to become diseased, induces Man to seek for the means of relief; and, he has accordingly made every part of the great creation subservient to his purpose: the Mineral, the vegetable, and the animal kingdoms, all furnish him with articles for his use; and, it is curious, as well as instructive, to reflect on the different articles which have alternately engrossed the attention of Physicians; some have been extolled in the most extravagant manner in one age, and been found entirely without efficacy in another.

This constant change can only be accounted for, by the extreme imperfection of the knowledge, which the ancients possessed of the economy of the human frame; According as Physicians become more enlightened on the subject, is the effect of Medicine reduced to something more nearly approaching to certainty: they have been taught that it is not upon one remedy

or one combination of remedies, that they are to rely, in the cure of diseases: but, by adapting certain remedies to certain states of the system; thus for instance, peruvian bark, which is universally allowed to be equivalent to the cure of intermittents; if applied in an improper state of the system, will nevertheless fail.

And it is from neglecting this attention to the state of the system, that remedies of so opposite a nature, have been so highly celebrated in the cure of particular diseases:

Physicians at this time, find no difficulty in accounting for the cures of scrofula, which were performed by the Royal touch, recollecting the natural tendency which this disease has to disappear, as the patient approaches the age of puberty. No remedy, to be applied effectually, requires more attention to the state of the system than the Cantharis: a spanish fly, the subject of this essay: this is one amongst the few remedies, which have maintained their position in the revolutions of opinion and changes

of practice which have occurred; they are perhaps the most efficacious remedy which we derive from the Animal Kingdom.

The cantharis, was not altogether unknown to the Ancients, for Hippocrates the great father of Medicine, it is said administered them internally, their first application for the purpose of exciting a blister, was by a man who lived but a short time before Galen; and it was then the practice to rub them on the head till vesication was produced.

The Arabian Physicians were the first to make a proper application of the fly, but it was a different species from that now in use, the Meloe Chicorei; (of Lin:) they are said not to be possessed of such active properties as the common Meloe, from which, they may be distinguished, by their having black legs, whereas in the Meloe Vesicatorius the legs are of the same colour as the body. They are called Spanish flies from the circumstance of their being obtained from Spain, though the largest quantity is now procured

from Italy, they are to be found however in most of the countries of Europe.

A species of the Cantharis has been discovered in this country, and could they be obtained in sufficient quantities for practical purposes, would supercede the necessity for importation, being fully equal in power to the common Meloe, and more prompt in producing their effects.

The common blistering fly, (the Meloe vesicatorius) is an insect of the beetle kind, nine or ten lines in length, of a shining, golden green colour, the Aterna or fulcra are black & pointed, the breast is somewhat round, the elytra or wing cases soft and flexible, and the head inflected; they multiply greatly and are seen in swarms; the manner of procuring them is by shaking them from the trees on which they settle, into a cloth and they are then destroyed by the fumes of vinegar. It is said they present a splendid appearance when disturbed at night, the trees on which they rest appearing as if illuminated

with fire; when perfectly dry they are very light, and are not destroyed by keeping, though kept as they are; a part of them is consumed by an insect, that reduces them to a fine powder, which is extremely active, they have a peculiar nauseous smell, & a nauseous sickly taste; Dr. Coxe mentions in the dispensatory that the Melolontha vitis is frequently mixed with them, and, as they are not possessed of the active property of the common fly, should be picked out before they are powdered. they may be distinguished by having square bodies.

The Cantharides have been analysed by Robiquet, and a peculiar principle discovered on which their blistering property depends; this substance, has been named Cantharadin and tho. it possesses the blistering property of the fly, does not contain that which produces strangury; it is soluble in hot alcohol, and again deposited when cold; it is soluble in oils, Ether, also disolves it, but not very powerfully.

It is stated in Dr. Paris' Pharmacologia, that boiling the flies in water removes the principle which produces strangury without injuring their vesicating property, by a reference to the process employed by Robiquet for procuring the Cantharadin, this statement will be found incorrect, for the first part of the process is to boil them in water till every thing soluble is taken up, and then the solution is evaporated; disolved in alcohol, evaporated, and again disolved in Ether, and suffered to evaporate in the air, when it will deposit crystals mixed with a yellow matter, which is the Cantharadin.

There are various modes of preparing blistering plasters, and one which answers very well, is to spread a plaster of basilicon ointment and sprinkle the powdered flies over it; an ointment made with a portion of Mustard, Capsicum, and flies, is frequently kept by the Apothecaries, and this almost invariably produces a blister when spread upon leather and applied to the surface of the body; when we

have not the ointment at hand, a quantity of the powdered flies sprinkled over a common poultice will answer very well; and it is observed by Dr. Chapman in his therapeutics that, after the common blistering plaster has produced a rubefacient effect, the application of a poultice will not only produce well filled vesications, but prevent the occurence of strangury.

The Cantharides when used internally may be exhibited in powder or tincture, the dose of the former is from grs. to grij; the latter however is generally preferred, the dose of which is from thirty to fifty drops, two or three times a day. In an overdose the Cantharis produces very unpleasant effects, discharges of blood by urine, with intense pain, and sometimes inflammation of the whole intestinal canal, inducing mucous and purulent stools, giddiness, delirium, and death. It has been supposed that the cantharides, possessed the power to increase

the venereal desire, and although it is one of those medicines which displays a marked affinity to the urinary organs, yet, I have seen it given without any such effect, and hea=
=rd of a great many other instances.

When given internally, they produced a glow upon the surface, and if given in pretty full doses in a proper state of the system will increase the discharge of urine, Dr. Chapman says two or three drams ought to be given for this purpose in the twenty four hours; in smaller doses, and when the system is in a state of excitement they wile mostly produced strangury; given as a diuretic they should be accompanied with plenty of drinks, as solution of Gum Arab=
=ic, flaxseed tea &c: as drinking copiously of these liquids has been found the most effectual mode of relieving, as well as preventing strangury. Dr. Cullen and others believed that the flies never produced a diuretic effect, but experience the

great test of truth has shown their error

Blisters may be said to act in the cure of diseases, either in a general or local manner; in the first case they produce a stimulating effect, which often counteracts the existing morbid action prevailing in the system. In the second they may produce an irritation on the surface, which is extended by sympathy to the local affection existing in a particular part, and either overcome it or invite it to the surface; no two actions of unequal force, can exist in the same part at the same time, the weaker must give way to the stronger; hence the necessity for reducing the force of the disease by evacuants, previous to the application of blisters: and they may produce an evacuant effect as in opthalmia &c.

I am now to give some account of their use in the cure of diseases; and first, in the cure of fevers, there has been much controversy respecting their efficacy in this class of

diseases, some contending that they are of no service whatever, while others consider them as one of our best remedies in combatting the disease; this difference of opinion I imagine has arisen from the different states of the system in which they have been applied; as used before the force of the disease is broken, and while there is great excitement, they will invariably do harm; and if delayed till the system is prostrated too low they will not draw, and if they should, they will not produce the salutary impressions, which they are so well calculated to make when properly timed.

The precise point at which it is proper to resort to blisters has been called the blistering point, and it requires attention on the part of the practitioner to discover and mark it.

This remedy has not been very extensively employed in intermittents, tho. there are many cases recorded where the bark had been resisted for a long time, which after the app=

application of blisters to the wrists, have speedily yielded to its action; and cases are also recorded in which blisters to the extremities, so as to be producing their full effect about the time the paroxysm was expected, entirely prevented its accession.

To the remittent bilious fever which has prevailed the present season to such an extent, along the shores of Jersey, and which has occasioned more destruction of life than is within the recollection of the oldest inhabitants, blistering has been found peculiarly applicable, to quiet the irritability of the stomach, and render the system susceptible to the action of the bark. This fever prevails more or less every autumn in every part of our country, and is generally of an inflammatory cast, blisters used previous to the inflammatory action being reduced, would be very likely to increase, instead of lessening the disease, in cases attended with great irritability of the stomach which is a frequent symptom, blisters may

be used earlier, and should be applied directly over this organ.

In that Species of fever known by the name of Yellow fever, which has so often bid defiance to our art, and almost depopulated Cities, which spreads such terror wherever it approaches that even

"Dependants, friends, relations, lord himself,
Forget the tender tie,
The sweet endearments of the feeling heart"

and fly the threatened danger; numerous dissections, and extended observations has rendered it certain that the stomach is the organ upon which the greatest force of this disease is expended, and such is the rapidity with which it destroys its victims, that a blister if delayed for a few days will, as every other remedy prove unavailing; prompt, and active Measures alone are to be relied on, and as a Species of gastritis is produced the most active use of the lancet, and blisters, constitute our principle resources;

blisters in such cases relieve the distressing sensations of the stomach, allay the vomiting, and thus give us an opportunity to resort to internal remedies; they should in such cases be of the largest size, and applied directly over the region of the stomach, when delirium is present which is frequently the case, a blister to the head has been found of great service to relieve this particular affection, and the head should be shaved a short time previous to the application as this has been found to prevent the occurence of strangury.

It was Dr. Rush's plan to resort to blisters in this disease if the fever did not intermit for three or four days, and he says they seldom failed to produce an intermission; but I consider the great efficacy of blisters to lie in relieving the unpleasant and local sensations of the stomach, though they will no doubt be found useful in giving the finishing blow to the fever, after its force has been weakened by other remedies.

To fever of every species, attended with local inflammation or congestion, they are equally applicable; but should always be preceded by bleeding both general and local, and should be applied generally as near the seat of the local inflammation as possible, and it should be recollected that cups or leeches cannot be applied advantageously to a blistered surface, and they should in all cases precede the application of blisters; by this means the blister will be rendered more efficacious, and by its action will either remove to the surface the remains of the inflammatory action, or by creating a new impression completely overcome the existing morbid one.

Typhus is generally attended with an increased determination of blood to the head, producing intense pain, delirium &c to relieve which, local bloodletting is undoubtedly the proper remedy, after which a blister to cover the whole cranium peg=

frequently produces the most salutary effects; in the sinking stages of this disease blisters to the extremities are one of the most valuable resources in Medicine; if however the depression has gone too far, rubefacients, friction &c would perhaps be preferable; as in that case in all probability blisters would not draw, and if they should, the chain of association is so completely broken that no extended action could take place, and they would consequently be of little or no service; when timely applied they will often break the morbid catenation on which this disease depends and produce a solution of the fever.

The whole of the phlegmasia perhaps does not present an exception to the use of blisters, and in some of these diseases they are amongst the most valuable of the physicians resources; in all the inflammatory affections of the abdominal viscera, blisters will be found of advantage; to gastritis they are peculiarly suited, for such is state of the

stomach in this disease, that nothing can be done with internal remedies, our only hope must then be on the lancet and blisters; Enteritis partakes of the same nature, as also peritonitis, and dysentery, (though we have not so much disorder of the stomach as in the former) and blisters will not fail to be attended with a good effect; in the last mentioned disease Dr. Chapman recommends a large one to be applied over the abdomen, and in such cases they not unfrequently produce an anodyne effect. In cholera Morbus our remedy is resorted to by all, to relieve the distressing sickness at stomach; in diseases which so soon rids the patient of his life, as this, and cholera Infantum, something more prompt than the common blistering plaster is required, and it has been recommended to make use of the nitric acid, by means of a feather dipped in it and brushed over the region of the stomach, this will produce very speedily the irritating effects of the flies, and as a coun=

counter irritant will answer every purpose. To Hepatites, Splenites &c, blisters are applicable preceded by abstractions of blood: as an antispasmodic in colic they are much used, in that species of it to which painters are so liable, and where the spasm resists the operation of the most active cathartics, this remedy is peculiarly suited; in such cases a blister to the abdomen will render the action of the cathartic speedy, and generally certain. To the inflammatory affections of the chest they are very generally applicable, in that species of Pneumonia, where there is an engorged state of the lungs, so much blood is taken out of the general circulation, that a large bleeding might be attended with fatal effects, we are compelled to resort to small bleedings, and a large blister to the thorax is a valuable auxiliary; in the more common form, where there is an inflammation of the pleura or substance of the lungs, blisters have been resorted to, previous to the use of

of the lancet, but such a practice I think is hazardous, and it is thought so by our ingenuous and learned professor of the practice of Medicine; there is perhaps no disease in which a free use of the lancet is required than in this, and blisters are of the greatest service when made to follow its extensive use. In the incipient stage of Phthisis to act as counter iritants, blisters are univers=ally resorted to, and by a timely recurrence to their use, and other moderately depleting remedies this disease may frequently be arrested, but after it is once fairly es=tablished I fear it will always remain a reproach to our art; some of the spas=modic affections of the chest may be re=lieved by blisters such as asthma, pertus=sis &c.

Blisters are used in most of the affections of the head, in Apoplexy it is said they were applied upon their first introduction into the practice of Medicine, and have continued to

to be employed

with advantage; in mania they are univers=
=ally resorted to Dr. Chapman observes in his ther=
=apeutics, that whilst the blister is drawing an
increase of the disease is mostly found to take
place, and cautions against their use when
such an exacerbation is particularly to be
dreaded;

In the treatment of rheumatism blisters
constitute one of our most valuable remedies,
and as in most other diseases are more servic=
=able after depletion. In some of the nervous
diseases as palsy, chorea, and epilepsy, particu=
=larly to the former they have been applied with
marked advantage; in that species of it
which is denominated hemiplegia I have seen
a blister to the back of the neck of much ser=
=vice; and where it affects particular parts
of the body, as the arm, a blister to the wrist will
frequently recall the lost sensation of the part.

The only species of dropsy in which they
are of much service, is that of the head, &
chest, they require perseverance in the application

in the application to be of service, I would sanc-
ly apply them in either ascites, or anasarca, tho.
a friend informs me he saw the greatest benefit
from a blister to the abdomen in a case of
the former disease; gangrene is however to be
dreaded in such cases.

Our remedy is applicable to many of
the exanthematous affections; small pox is
a disease over which Physicians may be said
to have completely triumphed, blisters to relieve
some of its unpleasant effects have been found
of much advantage; they are equally ap=
=plicable to some of the Catarrhal, and other
unpleasant symptoms attendant on Measles.
Scarlatina when complicated with an affe=
=ction of the throat, is managed advantag=
=eously by blisters pretty early applied.

They are a most valuable remedy in
arresting the progress of erysipelatous inflamm=
=ation, and it was from their being of service
in this disease that Dr. Physick was induced
to try their effects in arresting the progress

of gangrene, and they are equally usefull in that arising from wounds, or occuring spontaneously, as in the feet and toes of aged people. Many are the advantages which the surgeon derives from their use: in opthalmia they constitute an excellent mode of depletion and may be applied directly over the eye, only closing the lids with a small strip of adhesive Plaster. In the discussion of tumour their power is universally acknowledged.

The practice of applying blisters to inflamed veins, resulting from the common operation of venasection, is one of the many improvements, for which the science of Medicine is indebted to the ingenuity of Dr. Physick; a strip of the plaster should be applied along the whole course of the vein.

It only remains for me to give some account of their use internally administered they were given in this way by Hippocrates himself, and yet it has not been a long time since a practitioner of Medicine, was prosecuted for

administering them in this way; ignorance here triumphed over the unfortunate Doctor, but his ruin served to demonstrate the safety of the practice; from their affinity to the urinary organs, and their stimulating properties they are well calculated for some of the diseases of these organs; I have known a case of obstinate gleet completely cured in a short time by thirty drops of the tincture taken twice a day; Dr. James recommends in leucorrhea the following formula, and I have seen marked advantage from it in an obstinate case which had resisted several other remedies, it produced an agreeable glow upon the surface and diminished the discharge in a short time.

℞ Tinc: Cantharis ℥j
Aq: Pura — ℥vj m the dose of which is a table spoonfull twice a day. In Amenorrhea I have known benefit derived from the exhibition of the tincture, and I omitted to mention when speaking of

blisters, the efficacy of one applied to the sac-
-rum in this disease, and in obstinate cases
much benefit will be derived from such
applications

Dr. Horsack of New York in his appendix
to the modern practice of physic, says there
is no article of the Materia Medica, which
will produce such good effects in impotency
from weakness of the seminal organs as the
fly, he gives twenty five or thirty drops of the
tincture, and increases it in a day or two to
forty or fifty drops three times a day; much
perseverence, and regularity, is required in
its use, to be of service; it sometimes will
give relief in a short time, and in other cases
years will be required to remove the
disease, after taking it a short time the
patient generally experiences some little
difficulty in passing his urine, and this,
if it does not increase may be disregarded,
but if it should, it will then be necessary to
intermit the medicine for a few days, till this

inconvenience is removed, when it should be again resorted to till the like effect is produced; patients labouring under this disease should be cheered with the prospect of a speedy cure being held out to them, for they too often give themselves up to despair with all its horrors, and considering their case as hopeless neglect taking the Medicine.

I have now brought to a conclusion this essay; and have only to regret, that it is not more worthy of being offered to the university, from which I hope to derive the honors which the industrious and deserving student can alone obtain.

Cont. Dr. Kidney — Testis — Insp: Extrem

Hyd. Int. — apopl. — Pneumon.

Diuretics

Affinity —

Concussion — Compression